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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,984	05/31/2002	Steve Chick	2920-012194	9303

7590 05/14/2004

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EXAMINER	
WARREN, DAVID S	

ART UNIT	PAPER NUMBER
2837	

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/019,984	CHICK, STEVE	
	Examiner	Art Unit	
	David S. Warren	2837	

-- Th MAILING DATE of this communication appears on the cov r sh t with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 February 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *44-88* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *82-88* is/are allowed.

6)☒ Claim(s) *44-57 and 65-72* is/are rejected.

7)☐ Claim(s) *58-64 and 73-81* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

As stated in the previous Office Action (11/6/03):

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 44, 45 and 48 - 52 are rejected under 35 U.S.C. 102(b) as being anticipated by Lubow et al. (4235144). Regarding claim 44, Lubow shows the use of a a plectrum (14) for an instrument with plural conductive strings, a non-conductive gripper portion and a conductive tip (see col. 1, lines 53 and 55), wherein the tip produces a trigger signal each time the pick makes contact with the strings (col. 1, third paragraph; fig. 6). Regarding claim 45, the conducting portion of Ludow's plectrum is equivalent to applicant's first wire since it transfers an electrical signal to a second exterior wire. Regarding claims 48 and 49, the pick is triangular, therefore, the tip width is narrower than the body width. Regarding claim 50, the wire lead is adjacent to the apex of the pick. Regarding claim 51, the tip of Ludow's plectrum (indeed, any tip) corresponds to an outer edge. Regarding claim 52, Ludow discloses sensing the initial contact between plectrum and string (see fig. 8; elements 104 and 106).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 46, 47, 53, 57, 71, and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lubow et al. (4235144) in view of Davis (5025704). The teachings of Lubow have been discussed supra with respect to independent claim 44. Regarding claims 53, Lubow does not teach the use of a transmitter/receiver system to transfer radio frequency trigger signals from a musical instrument plectrum. Davis teaches the use of wireless transmission of an audio signal from a stringed musical instrument. One of ordinary skill in the art would have found it obvious to transmit the picking trigger signal of Lubow via the RF broadcast of Davis. The motivation for making this combination is, as stated in Davis, to eliminate the inconvenience of electrical cords and wires. Regarding claims 46 and 47, the applicant's chosen dimensions are deemed to be a matter of design choice since the dimensions appear to be an optimum value (*In re Boesch*, 617 F. 2d 272, 205 USPQ 215 – CCPA 1980). Regarding claim 57, see col. 3, lines 43 – 46. Regarding claims 71 and 72, since Davis uses the guitar string as an antenna, it is inherent that the RF signal is sent "into" the string (col. 1, lines 61 and 62).

To recapitulate this rejection, the examiner maintains that Lubow discloses the applicant's invention without the RF transmitter/receiver. Davis discloses that it is well known to transmit and receive musical instrument data via RF transmitters/receivers. One of ordinary skill would have found it obvious to combine the teachings of Davis and Lubow, since it is desirable to eliminate the troublesome wires and cords, especially those held in the hand of a guitarist. The motivation for making this combination can be found in Davis (col. 2, lines 10 – 15).

Claims 54 - 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lubow ('144) in view of Davis ('704) and LaMarra ('966). The teachings of Lubow and Davis have been discussed supra. Lubow nor Davis teach the use of a microprocessor nor storing and/or decoding streams of data from a transmitter/receiver system associated with a musical instrument. LaMarra discloses the use of transmitting an information stream to a microprocessor (116 or computer; col. 7, paragraphs 2 and 4). It is well known that computers can "decode" and "store" data. LaMarra's computer would inherently store and manipulate data (albeit MIDI data), including that of "maximum amplitude." Regarding claims 54 and 55, LaMarra shows the use of mounting the system on the wrist of a musician (fig. 23). Regarding claim 56, Davis discloses the use of a battery (col. 2, line 46). It would have been obvious to one of ordinary skill in the art to combine the teachings of Lubow and LaMarra to obtain a microprocessor for transmitting and receiving musical data streams. The motivation for

making this combination in found is LaMarra (col. 1, paragraph 5) who seeks to take advantage of MIDI computing power.

Allowable Subject Matter

Claims 58 – 70 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Regarding claims 58 – 64, the prior art does not disclose comparing a difference frequency (i.e., between a carrier and local oscillator frequencies) to obviate a false triggering signal association with a musical instrument plectrum. The applicant is advised that it if these claims are rewritten in independent form they will be identical to claims 82 – 88. Regarding claims 65 – 68, the prior art does not teach the use of establishing an intermediate frequency only when the pick tip is in contact with the string. Regarding claims 69 and 70, the prior art does not disclose a receiver that stores and outputs a value corresponding to a maximum amplitude of an audio signal form an instrument each time the plectrum contacts the string.

Claims 73 - 81 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not show "a triggering

signal which includes a plurality of triggering pulses" wherein signal processing is in accordance with "a predefined relationship with the triggering signal."

Claims 82 – 88 are allowed. This set of claims comprises the limitations of claims 58 – 64 rewritten in independent form.

Response to Arguments

Applicant's arguments filed February 9, 2004, have been fully considered but they are not persuasive. Regarding claim 44, the applicant argues that the teachings of Lubow do not show a conductive portion that protrudes "just beyond an edge" of the plucking device nor is it "sized so as to fleetingly contact a string" of the instrument. Both phrases, "just beyond" and "fleetingly contact" are relative terms with no standard of comparison set forth in the claim language. The term "trigger signal," in its broadest interpretation, is any signal that triggers (i.e., or causes) an event. Lubow shows "providing a sensing pulse whose leading and trailing edges are related to said pick means making and breaking contact with one of said one or more strings" (claim 2) and a "means for altering the voltage of said interconnection point when said pick means is in contact with said string" (col. 10, lines 1 – 3). This is interpreted as causing an effect (triggering) when the pick is in contact with the string. The examiner acknowledges that the signal processor of Lubow is activated by the trailing edge (i.e., when contact is broken) of the trigger signal – but claim 44 is silent to triggering a signal processor. It is

noted that the teachings of Lubow differ from those of the applicant, however, as broadly interpreted, Lubow meets the limitations of claim 44.

The applicant also raises the opinion of an International Preliminary Examination Report. This examiner understands that the plectrum of the applicant differs "markedly" from that of Lubow. However, as stated above, claim 44 fails to clearly define that difference.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patent to Stobaugh (3,290,425) shows changing the volume of an amplifier while a pick is in contact with the string (see claim 1).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Warren whose telephone number is 571-272-2076. The examiner can normally be reached on M-F, 9:30 A.M. to 6:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2800 ext 37. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dsw

MARLON T. FLETCHER
PRIMARY EXAMINER